Supplement to Exhibit 6 - Test Report.
Measurement Data for ERP
RF Power Output - Radiated Emission:
The radiated emission from the intentional radiator was measured using a spectrum analyzer for peak. A preamplifier with a fixed gain of 26 dB were used to increase the sensitivity of the measuring instrumentation. A biconilog antenna was used to measure the radiated power at a distance of 3 meters from the EUT. The intentional radiator was rotated 360 degrees, and the antenna height was varied to find the maximum radiated emission.

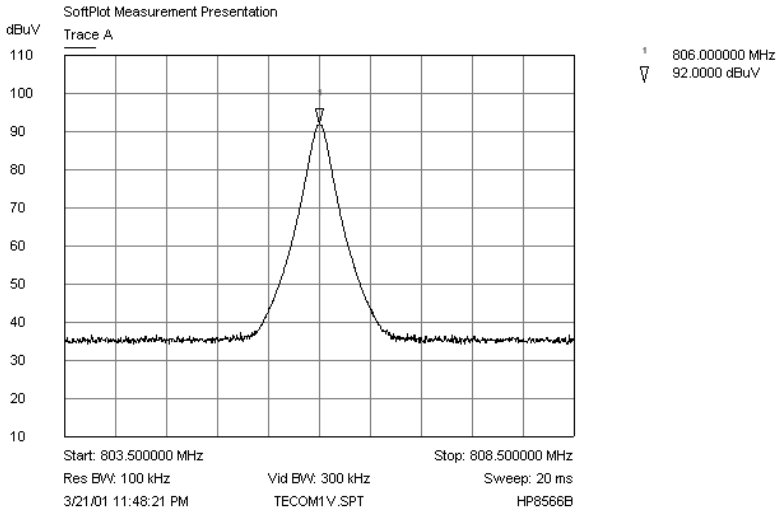

Figure 1 - Peak emission of low channel

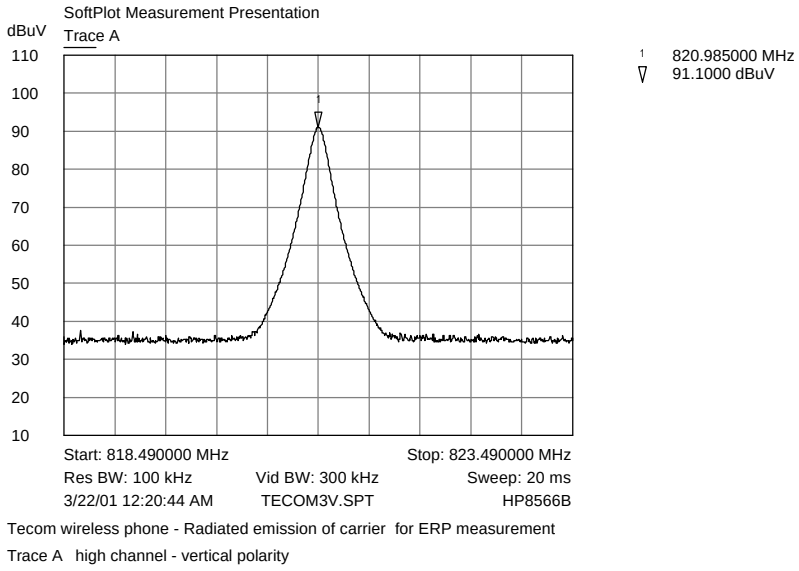

Figure 2 - Peak emission of high channel

The substitution antenna was a half wavelength dipole tuned for resonance at the frequency under consideration. The center of this antenna coincided with the reference point of the test sample it replaced.

The frequency of the signal generator was adjusted to the measurement frequency. The test antenna was raised and lowered to find the maximum. The input signal to the substitution antenna was then adjusted in level until an equal level to that detected from the transmitter was obtained at the test receiver.

The radiated power is then taken to be equal to the power supplied by the signal generator, increased by the gain of the substitution antenna and its known relation to the theoretical tuned dipole. The cable loss between the signal generator and the antenna was negligible.

Test condition	SA reading for radiated level (dBuV)	Level at signal generator (mW ~ dBm)	Antenna gain (dBi)	isotropic to dipole correction (dB)	ERP dBm ~ mW
low channel, vertical polarity	92	169.8 ~ 22.3	5.4	-2.15	25.55 ~ 358.9
High channel vertical polarity	91.1	257 ~ 24.1	5.2	-2.15	27.15 ~ **518.8**

Two readings are given, one for the low channel and one for the high. The ERP is taken as the higher reading which comes from the high channel. ERP = 518.8 mW

Formulas used:

conversion of numeric power to dBm: PdBm = 10*log(Pt/1 mW)

Conversion of dB to numeric power: PmW = 10^(PdBm/10)

Calculation of ERP: Psg + Gi + CFi-dp = ERP

Where PSG = power from the signal generator

Gi = antenna gain relative to the isotropic source

Cfi-dp = Conversion Factor for isotropic gain to dipole gain.